

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-236-1  
Relating to Certification of New Motor Vehicle Engines

AVCO INDUSTRIAL ENGINE OPERATION

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102, and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-3;

IT IS ORDERED AND RESOLVED: That the following Avco Industrial Engine Operation 1982 model-year diesel engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating greater than 8500 pounds:

<u>Engine Family</u>	<u>Displacement Cubic Inches (Liters)</u>	<u>Exhaust Emission Control Systems (Special Features)</u>
HR-H	219 (3.6)	(Smoke Puff Limiter) (Turbocharger)

Engine Models and Codes as listed on attachments.

Section 43200, Part 5, Division 26 of the California Health and Safety Code requires that the engine manufacturer furnish a decal with each engine sold or delivered to a vehicle manufacturer. The decal shall display the applicable model year heavy-duty engine exhaust emission standards and the following certification emission values:

<u>Engine Family</u>	<u>Hydrocarbons gm/bhp-hr</u>	<u>Carbon Monoxide gm/bhp-hr</u>	<u>Hydrocarbons + Nitrogen Oxides gm/bhp-hr</u>
HR-H	0.30	1.25	5.1

BE IT FURTHER RESOLVED: That the Executive Officer has been provided all material required to demonstrate certification compliance with the Board's emission control system warranty regulations (Title 13, California Administrative Code, Section 2036).

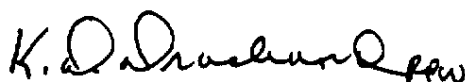
AVCO INDUSTRIAL ENGINE OPERATION

EXECUTIVE ORDER A-236-1  
(Page 2 of 2)

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachment.

Executed at El Monte, California this 9<sup>th</sup> day of June, 1981.



K. D. Drachand, Chief  
Mobile Source Control Division

# 1982 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer Ayco Ind. Engine Executive Order No. A-236-1 Page 1  
Operation  
 Engine Family - Evaporative Family -  
 Engine CID (Liters) 219 (3.6)

## ABBREVIATIONS

### Ignition System

CA-Centrifugal Advance  
 EEC-Electronic Engine Control  
 EI-Electronic Ignition  
 ESAC-Electronic Spark Advance  
 Control  
 VA-Vacuum Advance  
 VR-Vacuum Retard

### Fuel System

CFI, CL, DID, DIP, EFI, MFI  
 nV-nVenturi Carburetor  
 VV-Variable Venturi

### Exhaust Emissions Control System

AIP-Air Injection-Pump  
 AIV-Air Injection-Valve  
 CL-Closed Loop  
 EGR-Exhaust Gas Recirculation  
 EM-Engine Modification  
 OC-Oxidation Catalyst System  
 TR-Thermal Reactor  
 TWC-Three Way Catalyst System

### Special Features

CCV-Combustion  
 Chamber Valve  
 CFI-Central Fuel  
 Injection  
 DID-Diesel  
 Injection-  
 Direct  
 DIP-Diesel  
 Injection-  
 Prechamber  
 MFI-Mechanical  
 Fuel Injection  
 TC-Turbocharged

### Engine Family

HR-H

### Model

HR692 HTA

DRIVE SYSTEM:


1982 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL ENGINESManufacturer Avco Industrial Engine OperationPage 2Engine Family HR-HCID(Liter)-Type 219 (3.6) L-6ECS(Special Features) (Smoke Puff Limiter, Turbocharged)

Engine Model	Fuel Injection Pump Mfr. Bosh Part Number	Injector Mfr. Bosh Part Number	Maximum Rated HP and RPM	Fuel Rate at Maximum HP mm <sup>3</sup> /stroke	Label Ident.
HR692 HTA	Type VE6 046-041-6014	KBE5854-4	130 @ 4000	44.5	see pg. 3

Date of Issue -

1982 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET

Manufacturer AVCO Engine Operation Executive Order No. A-236-1 Page 3

ENGINE EXHAUST		
EMISSION CONTROL INFORMATION		
AVCO INDUSTRIAL ENGINE OPERATION		
ENG FAMILY		
<input type="text"/>		
SERIAL NO:	MODEL	MFG DATE
<input type="text"/>	<input type="text"/>	<input type="text"/>
HP	RPM	FUEL RATE (MM <sup>3</sup> /STROKE)
<input type="text"/>	<input type="text"/>	<input type="text"/>
STATIC PUMP TIMING — 4° BTDC		
COLD INLET VALVE _____ INCH		
COLD EXHAUST VALVE _____ INCH		
THIS ENGINE CONFORMS TO		
0.19 <input type="checkbox"/> EPA EMISSION STANDARDS		

*Table with Calif. Requirements  
to follow, Requested 5-27-81*